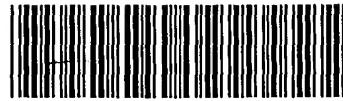


2/15



#2 OIPE

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/10/052,817

DATE: 02/12/2002  
TIME: 15:35:44

Input Set : A:\seqlist\_0609 4460005.txt  
Output Set: N:\CRF3\02122002\J052817.raw

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7 <110> APPLICANT: Tanzi, Rudolph E.  
10 Kovacs, Dora  
13 Saunders, Aleister J.  
19 <120> TITLE OF INVENTION: Alpha-2-Macroglobulin Therapies and Drug Screening Methods  
for  
22 Alzheimer's Disease  
27 <130> FILE REFERENCE: 0609.4460005  
C--> 33 <140> CURRENT APPLICATION NUMBER: US/10/052,817  
C--> 36 <141> CURRENT FILING DATE: 2002-01-23  
41 <150> PRIOR APPLICATION NUMBER: 09/241,606  
44 <151> PRIOR FILING DATE: 1999-02-02  
48 <150> PRIOR APPLICATION NUMBER: 09/148,503  
51 <151> PRIOR FILING DATE: 1998-09-04  
55 <150> PRIOR APPLICATION NUMBER: 60/093,297  
58 <151> PRIOR FILING DATE: 1998-07-17  
63 <160> NUMBER OF SEQ ID NOS: 27  
69 <170> SOFTWARE: PatentIn Ver. 2.0  
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90 <220> FEATURE:  
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96 <222> LOCATION: (44)..(112)  
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105 <221> NAME/KEY: CDS  
108 <222> LOCATION: (44)..(4468)  
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117 <221> NAME/KEY: mat\_peptide  
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132 Met Gly Lys Asn  
135 -20  
146 aaa ctc ctt cat cca agt ctg gtt ctt ctc ttg gtc ctc ctg ccc 103  
149 Lys Leu Leu His Pro Ser Leu Val Leu Leu Leu Val Leu Pro  
152 -15 -10 -5  
158 aca gac gcc tca gtc tct gga aaa ccg cag tat atg gtt ctg gtc ccc 151  
161 Thr Asp Ala Ser Val Ser Gly Lys Pro Gln Tyr Met Val Leu Val Pro  
164 -1 1 5 10  
170 tcc ctg ctc cac act gag acc act gag aag ggc tgt gtc ctt ctg agc 199  
173 Ser Leu Leu His Thr Glu Thr Glu Lys Gly Cys Val Leu Leu Ser  
176 15 20 25  
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185	Tyr	Leu	Asn	Glu	Thr	Val	Thr	Val	Ser	Ala	Ser	Leu	Glu	Ser	Val	Arg	
188	30				35				40				45				
194	gga	aac	agg	agc	ctc	ttc	act	gac	ctg	gag	gcg	gag	aat	gac	gta	ctc	295
197	Gly	Asn	Arg	Ser	Leu	Phe	Thr	Asp	Leu	Glu	Ala	Glu	Asn	Asp	Val	Leu	
200					50				55				60				
206	cac	tgt	gtc	gcc	ttc	gct	gtc	cca	aag	tct	tca	tcc	aat	gag	gag	gta	343
209	His	Cys	Val	Ala	Phe	Ala	Val	Pro	Lys	Ser	Ser	Ser	Asn	Glu	Glu	Val	
212					65				70				75				
218	atg	ttc	ctc	act	gtc	caa	gtg	aaa	gga	cca	acc	caa	gaa	ttt	aag	aag	391
221	Met	Phe	Leu	Thr	Val	Gln	Val	Lys	Gly	Pro	Thr	Gln	Glu	Phe	Lys	Lys	
224					80			85				90					
230	cgg	acc	aca	gtg	atg	gtt	aag	aac	gag	gac	agt	ctg	gtc	ttt	gtc	cag	439
233	Arg	Thr	Thr	Val	Met	Val	Lys	Asn	Glu	Asp	Ser	Leu	Val	Phe	Val	Gln	
236					95			100				105					
242	aca	gac	aaa	tca	atc	tac	aaa	cca	ggg	cag	aca	gtg	aaa	ttt	cgt	gtt	487
245	Thr	Asp	Lys	Ser	Ile	Tyr	Lys	Pro	Gly	Gln	Thr	Val	Lys	Phe	Arg	Val	
248					110			115				120				125	
254	gtc	tcc	atg	gat	gaa	aac	ttt	cac	ccc	ctg	aat	gag	ttg	att	cca	cta	535
257	Val	Ser	Met	Asp	Glu	Asn	Phe	His	Pro	Leu	Asn	Glu	Leu	Ile	Pro	Leu	
260					130			135				140					
268	gta	tac	att	cag	gat	ccc	aaa	gga	aat	cg	atc	gca	caa	tgg	cag	agt	583
271	Val	Tyr	Ile	Gln	Asp	Pro	Lys	Gly	Asn	Arg	Ile	Ala	Gln	Trp	Gln	Ser	
274					145			150				155					
280	ttc	cag	tta	gag	ggt	ggc	ctc	aag	caa	ttt	tct	ttt	ccc	ctc	tca	tca	631
283	Phe	Gln	Leu	Glu	Gly	Gly	Leu	Lys	Gln	Phe	Ser	Phe	Pro	Leu	Ser	Ser	
286					160			165				170					
292	gag	ccc	ttc	cag	ggc	tcc	tac	aag	gtg	gtg	gta	cag	aag	aaa	tca	ggt	679
295	Glu	Pro	Phe	Gln	Gly	Ser	Tyr	Lys	Val	Val	Val	Gln	Lys	Lys	Ser	Gly	
298					175			180				185					
304	gga	agg	aca	gag	cac	cct	ttc	acc	gtg	gag	gaa	ttt	gtt	ctt	ccc	aag	727
307	Gly	Arg	Thr	Glu	His	Pro	Phe	Thr	Val	Glu	Glu	Phe	Val	Leu	Pro	Lys	
310					190			195				200				205	
316	ttt	gaa	gta	caa	gta	aca	gtg	cca	aag	ata	atc	acc	atc	ttg	gaa	gaa	775
319	Phe	Glu	Val	Gln	Val	Thr	Val	Pro	Lys	Ile	Ile	Thr	Ile	Glu	Glu		
322					210			215				220					
328	gag	atg	aat	gta	tca	gtg	tgt	ggc	cta	tac	aca	tat	ggg	aag	cct	gtc	823
331	Glu	Met	Asn	Val	Ser	Val	Cys	Gly	Leu	Tyr	Thr	Tyr	Gly	Lys	Pro	Val	
334					225			230				235					
340	cct	gga	cat	gtg	act	gtg	agc	att	tgc	aga	aag	tat	agt	gac	gct	tcc	871
343	Pro	Gly	His	Val	Thr	Val	Ser	Ile	Cys	Arg	Lys	Tyr	Ser	Asp	Ala	Ser	
346					240			245				250					
352	gac	tgc	cac	ggg	gaa	gat	tca	cag	gct	ttc	tgt	gag	aaa	ttc	agt	gga	919
355	Asp	Cys	His	Gly	Glu	Asp	Ser	Gln	Ala	Phe	Cys	Glu	Lys	Phe	Ser	Gly	
358					255			260				265					
364	cag	cta	aac	agc	cat	ggc	tgc	ttc	tat	cag	caa	gta	aaa	acc	aag	gtc	967
367	Gln	Leu	Asn	Ser	His	Gly	Cys	Phe	Tyr	Gln	Gln	Val	Lys	Thr	Lys	Val	
370					270			275				280				285	
376	ttc	cag	ctg	aag	agg	aag	gag	tat	gaa	atg	aaa	ctt	cac	act	gag	gcc	1015
379	Phe	Gln	Leu	Lys	Arg	Lys	Glu	Tyr	Glu	Met	Lys	Leu	His	Thr	Glu	Ala	

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389	cag atc caa gaa gaa gga aca gtg gtg gaa ttg act gga agg cag tcc			1063
392	Gln Ile Gln Glu Glu Gly Thr Val Val Glu Leu Thr Gly Arg Gln Ser			
395	305	310	315	
401	agt gaa atc aca aga acc ata acc aaa ctc tca ttt gtg aaa gtg gac			1111
404	Ser Glu Ile Thr Arg Thr Ile Thr Lys Leu Ser Phe Val Lys Val Asp			
407	320	325	330	
413	tca cac ttt cga cag gga att ccc ttc ttt ggg cag gtg cgc cta gta			1159
416	Ser His Phe Arg Gln Gly Ile Pro Phe Phe Gly Gln Val Arg Leu Val			
419	335	340	345	
425	gat ggg aaa ggc gtc cct ata cca aat aaa gtc ata ttc atc aga gga			1207
428	Asp Gly Lys Gly Val Pro Ile Pro Asn Lys Val Ile Phe Ile Arg Gly			
431	350	355	360	365
437	aat gaa gca aac tat tac tcc aat gct acc acg gat gag cat ggc ctt			1255
440	Asn Glu Ala Asn Tyr Tyr Ser Asn Ala Thr Thr Asp Glu His Gly Leu			
443	370	375	380	
449	gta cag ttc tct atc aac acc aac gtt atg ggt acc tct ctt act			1303
452	Val Gln Phe Ser Ile Asn Thr Thr Asn Val Met Gly Thr Ser Leu Thr			
455	385	390	395	
461	gtt agg gtc aat tac aag gat cgt agt ccc tgt tac ggc tac cag tgg			1351
464	Val Arg Val Asn Tyr Lys Asp Arg Ser Pro Cys Tyr Gly Tyr Gln Trp			
467	400	405	410	
473	gtg tca gaa gaa cac gaa gag gca cat cac act gct tat ctt gtg ttc			1399
476	Val Ser Glu Glu His Glu Ala His His Thr Ala Tyr Leu Val Phe			
479	415	420	425	
485	tcc cca agc aag agc ttt gtc cac ctt gag ccc atg tct cat gaa cta			1447
488	Ser Pro Ser Lys Ser Phe Val His Leu Glu Pro Met Ser His Glu Leu			
491	430	435	440	445
497	ccc tgt ggc cat act cag aca gtc cag gca cat tat att ctg aat gga			1495
500	Pro Cys Gly His Thr Gln Thr Val Gln Ala His Tyr Ile Leu Asn Gly			
503	450	455	460	
509	ggc acc ctg ctg ggg ctg aag aag ctc tcc ttt tat tat ctg ata atg			1543
512	Gly Thr Leu Leu Gly Leu Lys Lys Leu Ser Phe Tyr Tyr Leu Ile Met			
515	465	470	475	
521	gca aag gga ggc att gtc cga act ggg act cat gga ctg ctt gtg aag			1591
524	Ala Lys Gly Gly Ile Val Arg Thr Gly Thr His Gly Leu Leu Val Lys			
527	480	485	490	
533	cag gaa gac atg aag ggc cat ttt tcc atc tca atc cct gtg aag tca			1639
536	Gln Glu Asp Met Lys Gly His Phe Ser Ile Ser Ile Pro Val Lys Ser			
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545	gac att gct cct gtc gct cgg ttg ctc atc tat gct gtt tta cct acc			1687
548	Asp Ile Ala Pro Val Ala Arg Leu Leu Ile Tyr Ala Val Leu Pro Thr			
551	510	515	520	525
557	ggg gac gtg att ggg gat tct gca aaa tat gat gtt gaa aat tgt ctg			1735
560	Gly Asp Val Ile Gly Asp Ser Ala Lys Tyr Asp Val Glu Asn Cys Leu			
563	530	535	540	
569	gcc aac aag gtg gat ttg agc ttc agc cca tca caa agt ctc cca gcc			1783
572	Ala Asn Lys Val Asp Leu Ser Phe Ser Pro Ser Gln Ser Leu Pro Ala			
575	545	550	555	

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587	560				565								570				
593	ctc	cgt	gct	gtg	gac	caa	agc	gtg	ctg	ctc	atg	aag	cct	gat	gct	gag	1879
596	Leu	Arg	Ala	Val	Asp	Gln	Ser	Val	Leu	Leu	Met	Lys	Pro	Asp	Ala	Glu	
599	575				580								585				
605	ctc	tcg	gct	tcc	tcg	gtt	tac	aac	ctg	cta	cca	gaa	aag	gac	ctc	act	1927
608	Leu	Ser	Ala	Ser	Ser	Val	Tyr	Asn	Leu	Leu	Pro	Glu	Lys	Asp	Leu	Thr	
611	590				595							600			605		
617	ggc	ttc	cct	ggg	cct	ttg	aat	gac	cag	gac	aat	gaa	gac	gtc	atc	aat	1975
620	Gly	Phe	Pro	Gly	Pro	Leu	Asn	Asp	Gln	Asp	Asp	Glu	Asp	Cys	Ile	Asn	
623							610			615				620			
629	cgt	cat	aat	gtc	tat	att	aat	gga	atc	aca	tat	act	cca	gta	tca	agt	2023
632	Arg	His	Asn	Val	Tyr	Ile	Asn	Gly	Ile	Thr	Tyr	Thr	Pro	Val	Ser	Ser	
635							625			630			635				
641	aca	aat	gaa	aag	gat	atg	tac	agc	ttc	cta	gag	gac	atg	ggc	tta	aag	2071
644	Thr	Asn	Glu	Lys	Asp	Met	Tyr	Ser	Phe	Leu	Glu	Asp	Met	Gly	Leu	Lys	
647							640			645			650				
653	gca	ttc	acc	aac	tca	aag	att	cgt	aaa	ccc	aaa	atg	tgt	cca	cag	ctt	2119
656	Ala	Phe	Thr	Asn	Ser	Lys	Ile	Arg	Lys	Pro	Lys	Met	Cys	Pro	Gln	Leu	
659							655			660			665				
665	caa	cag	tat	gaa	atg	cat	gga	cct	gaa	ggt	cta	cgt	gta	ggt	ttt	tat	2167
668	Gln	Gln	Tyr	Glu	Met	His	Gly	Pro	Glu	Gly	Leu	Arg	Val	Gly	Phe	Tyr	
671	670						675			680			685				
677	gag	tca	gat	gtg	atg	gga	aga	ggc	cat	gca	cgc	ctg	gtg	cat	gtt	gaa	2215
680	Glu	Ser	Asp	Val	Met	Gly	Arg	Gly	His	Ala	Arg	Leu	Val	His	Val	Glu	
683							690			695			700				
689	gag	cct	cac	acg	gag	acc	gta	cga	aag	tac	ttc	cct	gag	aca	tgg	atc	2263
692	Glu	Pro	His	Thr	Glu	Thr	Val	Arg	Lys	Tyr	Phe	Pro	Glu	Thr	Trp	Ile	
695							705			710			715				
701	tgg	gat	ttg	gtg	2311												
704	Trp	Asp	Leu	Val	Val	Val	Asn	Ser	Ala	Gly	Val	Ala	Glu	Val	Gly	Val	
707							720			725			730				
713	aca	gtc	cct	gac	acc	atc	acc	gag	tgg	aag	gca	ggg	gcc	ttc	tgc	ctg	2359
716	Thr	Val	Pro	Asp	Thr	Ile	Thr	Glu	Trp	Lys	Ala	Gly	Ala	Phe	Cys	Leu	
719							735			740			745				
725	tct	gaa	gat	gct	gga	ctt	ggt	atc	tct	tcc	act	gcc	tct	ctc	cga	gcc	2407
728	Ser	Glu	Asp	Ala	Gly	Leu	Gly	Ile	Ser	Ser	Thr	Ala	Ser	Leu	Arg	Ala	
731	750						755			760			765				
737	ttc	cag	ccc	ttc	ttt	gtg	gag	ctt	aca	atg	cct	tac	tct	gtg	att	cgt	2455
740	Phe	Gln	Pro	Phe	Phe	Val	Glu	Leu	Thr	Met	Pro	Tyr	Ser	Val	Ile	Arg	
743							770			775			780				
749	gga	gag	gcc	ttc	aca	ctc	aag	gcc	acg	gtc	cta	aac	tac	ctt	ccc	aaa	2503
752	Gly	Glu	Ala	Phe	Thr	Leu	Lys	Ala	Thr	Val	Leu	Asn	Tyr	Leu	Pro	Lys	
755							785			790			795				
761	tgc	atc	cgg	gtc	agt	gtg	cag	ctg	gaa	gcc	tct	ccc	gcc	ttc	ctt	gct	2551
764	Cys	Ile	Arg	Val	Ser	Val	Gln	Leu	Glu	Ala	Ser	Pro	Ala	Phe	Leu	Ala	
767							800			805			810				
773	gtc	cca	gtg	gag	aag	caa	gca	gct	cct	cac	tgc	atc	tgt	gca	aac	ggg	2599

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779	815					820					825						
785	cgg	caa	act	gtg	tcc	tgg	gca	gta	acc	cca	aag	tca	tta	gga	aat	gtg	2647
788	Arg	Gln	Thr	Val	Ser	Trp	Ala	Val	Thr	Pro	Lys	Ser	Leu	Gly	Asn	Val	
791	830					835					840				845		
797	aat	ttc	act	gtg	agc	gca	gag	gca	cta	gag	tct	caa	gag	ctg	tgt	ggg	2695
800	Asn	Phe	Thr	Val	Ser	Ala	Glu	Ala	Leu	Glu	Ser	Gln	Glu	Leu	Cys	Gly	
803	850					855					860						
809	act	gag	gtg	cct	tca	gtt	cct	gaa	cac	gga	agg	aaa	gac	aca	gtc	atc	2743
812	Thr	Glu	Val	Pro	Ser	Val	Pro	Glu	His	Gly	Arg	Lys	Asp	Thr	Val	Ile	
815	865					870					875						
821	aag	cct	ctg	ttg	gtt	gaa	cct	gaa	gga	cta	gag	aag	gaa	aca	aca	ttc	2791
824	Lys	Pro	Leu	Leu	Val	Glu	Pro	Glu	Gly	Leu	Glu	Lys	Glu	Thr	Thr	Phe	
827	880					885					890						
833	aac	tcc	cta	ctt	tgt	cca	tca	ggg	ggt	gag	gtt	tct	gaa	gaa	tta	tcc	2839
836	Asn	Ser	Leu	Leu	Cys	Pro	Ser	Gly	Gly	Glu	Val	Ser	Glu	Glu	Leu	Ser	
839	895					900					905						
845	ctg	aaa	ctg	cca	caa	aat	gtg	gta	gaa	gaa	tct	gcc	cga	gct	tct	gtc	2887
848	Leu	Lys	Leu	Pro	Pro	Asn	Val	Val	Glu	Glu	Ser	Ala	Arg	Ala	Ser	Val	
851	910					915					920				925		
857	tca	gtt	ttg	gga	gac	ata	tta	ggc	tct	gcc	atg	caa	aac	aca	caa	aat	2935
860	Ser	Val	Leu	Gly	Asp	Ile	Leu	Gly	Ser	Ala	Met	Gln	Asn	Thr	Gln	Asn	
863	930					935					940						
869	ctt	ctc	cag	atg	ccc	tat	ggc	tgt	gga	gag	cag	aat	atg	gtc	ctc	ttt	2983
872	Leu	Leu	Gln	Met	Pro	Tyr	Gly	Cys	Gly	Glu	Gln	Asn	Met	Val	Leu	Phe	
875	945					950					955						
881	gct	cct	aac	atc	tat	gta	ctg	gat	tat	cta	aat	gaa	aca	cag	cag	ctt	3031
884	Ala	Pro	Asn	Ile	Tyr	Val	Leu	Asp	Tyr	Leu	Asn	Glu	Thr	Gln	Gln	Leu	
887	960					965					970						
893	act	cca	gag	atc	aag	tcc	aag	gcc	att	ggc	tat	ctc	aac	act	ggt	tac	3079
896	Thr	Pro	Glu	Ile	Lys	Ser	Lys	Ala	Ile	Gly	Tyr	Leu	Asn	Thr	Gly	Tyr	
899	975					980					985						
905	cag	aga	cag	ttg	aac	tac	aaa	cac	tat	gat	ggc	tcc	tac	agc	acc	ttt	3127
908	Gln	Arg	Gln	Leu	Asn	Tyr	Lys	His	Tyr	Asp	Gly	Ser	Tyr	Ser	Thr	Phe	
911	990					995					1000				1005		
917	ggg	gag	cga	tat	ggc	agg	aac	cag	ggc	aac	acc	tgg	ctc	aca	gcc	ttt	3175
920	Gly	Glu	Arg	Tyr	Gly	Arg	Asn	Gln	Gly	Asn	Thr	Trp	Leu	Thr	Ala	Phe	
923	1010					1015					1020						
929	gtt	ctg	aag	act	ttt	gcc	caa	gct	cga	gcc	tac	atc	ttc	atc	gat	gaa	3223
932	Val	Leu	Lys	Thr	Phe	Ala	Gln	Ala	Arg	Ala	Tyr	Ile	Phe	Ile	Asp	Glu	
935	1025					1030					1035						
941	gca	cac	att	acc	caa	gcc	ctc	ata	tgg	ctc	tcc	cag	agg	cag	aag	gac	3271
944	Ala	His	Ile	Thr	Gln	Ala	Leu	Ile	Trp	Leu	Ser	Gln	Arg	Gln	Lys	Asp	
947	1040					1045					1050						
953	aat	ggc	tgt	ttc	agg	agc	tct	ggg	tca	ctg	ctc	aac	aat	gcc	ata	aag	3319
956	Asn	Gly	Cys	Phe	Arg	Ser	Ser	Gly	Ser	Leu	Leu	Asn	Asn	Ala	Ile	Lys	
959	1055					1060					1065						
965	gga	gga	gta	gaa	gat	gaa	gtg	acc	ctc	tcc	gcc	tat	atc	acc	atc	gcc	3367
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VERIFICATION SUMMARY

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L:33 M:270 C: Current Application Number differs, Replaced Application Number  
L:36 M:271 C: Current Filing Date differs, Replaced Current Filing Date